

MA DEP Waste Site Cleanup

Audit and Enforcement Update

1995 Compilation

This column represents what DEP hopes to be the beginning of a cooperative effort with the LSPA to disseminate information regarding DEP's Bureau of Waste Site Cleanup's (BWSC's) audit and enforcement efforts. This first column catalogs the results of BWSC audits and indicates future trends in DEP enforcement. Future columns may compare a series of audits that deal with a particular issue and discuss general issues regarding audits. Please direct questions regarding specific audit or enforcement actions to the appropriate BWSC Regional Engineer or Audit Section Chief.

January 1995

Audit Findings

BWSC completed 29 audits between October 18 and November 30, 1994. Audit findings of particular significance include:

1. BWSC issued Notices of Noncompliance (NONs) for failures to remove containers of hazardous waste (Palmer, 1-0686, October 18, 1994; Natick, 3-3496, October 20, 1994).
2. The effectiveness of a soil venting system had not been adequately monitored prior to submission of a waiver completion statement. Also, the Phase II assessment failed to identify the direction of groundwater flow and utilities that could be migration pathways. (Needham, 3-1007, November 4, 1994).
3. An RAO failed to include a grant restricting use of a nearby private well that supplied bottled water (Brockton, 4-10380, November 8, 1994).
4. Soils samples near a leaching field were not tested for metals even though metals had been detected in downgradient groundwater samples. (Holbrook, 3-0557, November 9, 1994)
5. The risk evaluation for a waiver completion statement failed to consider exposure to contaminated groundwater and omitted 1,1 DCA, cis-1,2 DCE, chloroform and dichloromethane without sufficient justification (Middleton, 3-3205, November 18, 1994).
6. An air stripper lacked controls to meet a 95% removal rate (Brimfield, 1-0319, November 21, 1994).
7. BWSC issued an NON for a failure to complete a soil gas investigation required as a condition of a waiver (Newton, 3-2560, November 22, 1994).

MCP and Fee Changes May Mean busy January and February for LSPs

MCP changes effective on February 1, 1995 provide that if an RAO or a Tier Classification is not filed with DEP within 1 year of a release entering the MCP system, the release will automatically default to a Tier IB status, and a Tier IB annual compliance fee (\$2,600) will be assessed.

Releases which have already missed their 1-year deadline will default to Tier IB status on February 24, 1995. Proposed changes to the DEP fee regulations provide that those releases will be assessed Tier IB fees unless the PRP files an RAO or Tier Classification BEFORE February 24, 1995. Expect calls from PRPs who will want to take advantage of this "second chance" to avoid paying Tier IB fees.

How to Make Multiple Submittals

DEP prefers keeping each response action submittal separate to aid data entry. If you do decide to bind submittals together, put all required transmittal forms with original signatures together in the first section of the bound report.

February 1995

Audit Findings

This column reports on 24 audits and compliance inspections BWSC completed between November 28, 1994 and December 31, 1994. Audit findings of particular significance include:

- 1.The sampling for contamination on the western side of an UST excavation had not been done. Also, the groundwater and soil classifications in the RAO had not been sufficiently documented (Brockton, 4-10114, Dec. 1, 1994).
- 2.The Cape Cod Aquifer is considered a Potentially Productive Aquifer for purposes of Section IV.B. of the NRS. Section IV.C. of the NRS refers only to users of water supply sources that may be impacted by a release (Yarmouth, 4-1327, Dec. 6, 1994).
- 3.Air sampling for VOCs had been conducted late. Hnu meters have too high of detection limits to rule out risks posed by VOCs (Billerica, 3-4427, Dec. 9, 1994). Sufficient groundwater sampling for VOCs had not been done (Billerica, 3-2481, Dec. 12, 1994).
- 4.BWSC issued an NON for the undocumented replacement at a waiver site of an air stripping STM with a GAC system. Also, the consultant disposed of purged contaminated groundwater, gloves and rope on-site (Orleans, 4-0391, Dec. 13, 1995).
- 5.A site that had seven USTs removed lacked sufficient analytical data for an RAO. The monitoring well that recorded the highest groundwater contaminant level had been screened below the water table and should be replaced (Holliston, 2-0064, Dec. 14, 1994).
- 6.MTBE odors near a stream and residential property needed to be further assessed (Norwell, Dec. 19, 1994, 4-0134).
- 7.15 drums of remediation waste must be disposed of according to state and federal regulations (Lakeville, 4-0101, Dec. 19, 1994).
- 8.The extent of soil contamination above S-1 levels beneath a highway had not been fully delineated prior to the placement of an AUL on the adjoining property (Chester, 1-10112, Dec. 28, 1994).

Correction

The January 1995 Update incorrectly reported that a private well abutting a site provided bottled water. Actually, bottled water had been supplied in lieu of use of that private well for drinking water. The RAO failed to restrict use of the private well and the well remained in use for non-drinking water purposes. (Brockton, 4-10380, November 8, 1994).

March 1995

Audit Findings

This column reports on 16 audits and compliance inspections BWSC completed between November 2, 1994 and January 31, 1995. Audit findings of particular significance include:

1. An RAO for a fuel oil loading area located within 500' of residences and 900' of a river failed to adequately address groundwater contamination. Groundwater should have been assessed or technical justification should have been provided and private wells located (Chester, 1-10112, Dec. 28, 1994).
2. BWSC issued a NON and a NOR to the owner of a property who submitted a Class A2 RAO that failed to demonstrate no significant risk existed. Concentrations of PCE near a private water supply well exceeded 1900 ppb (GW-1 = 5 ppb) and soil concentrations nearby exceeded 19,000 ppb (S-1 = 500 ppb). A Grant of Environmental Restriction would be necessary to obtain a Class A3 RAO (Bridgewater, 4-10041, Jan. 18, 1995).
3. A PRP could not rely on a Phase I report as completing response actions for an unclassified site since the report required further monitoring. BWSC observed free-phase product in monitoring wells at the site and required that further work at the site proceed under the 1993 MCP. (Greenfield, 1-0457, Jan. 19, 1995).
4. Soil samples in one wall of a tank excavation at 627.9 ug/g constituted a hot spot that could not be averaged into non-detect samples from the other walls of the excavation. BWSC required an audit follow-up plan (Ludlow, 1-0996, Jan. 24, 1995).
5. BWSC issued an NON for the exchange without DEP approval of a GAC unit for an air stripper operating as an STM. BWSC observed VOCs being emitted from the GAC during the inspection (Wareham, 4- 0371, Jan. 25, 1995).

Modifications to LSP Opinion Language Not Allowed

Some LSPs have been submitting Bills of Lading (BOLs) that have improperly modified the LSP opinion required to be attached to the (BOL). The LSPs have added language that indicates that they have not independently verified that the contaminated soil shipped under the BOL meets the permit requirements of the receiving facility. Pursuant to 310 CMR 40.0035(1)(h), LSPs must render an opinion that remediation waste shipped under a BOL conforms with the permitting and regulatory requirements of the receiving facility. Modifications of this LSP Opinion indicate that these LSPs have wilfully violated the regulations pertaining to BOLs. BWSC will refuse to accept any BWSC Transmittal Form, Permit, or LSP Opinion "Attachment Page" if the LSP Opinion language has been modified. This delay in completion of response actions may lead to further accrual of compliance fees. Modifications may also result in further enforcement action.

April 1995

Audit Findings

This column reports on 16 audits and compliance inspections BWSC completed between January 26, 1995 and February 28, 1995. Audit findings of particular significance include:

1. An RP withdrew an RAO for two 40-year old USTs which initially had leak rates exceeding .05 gal/hr and contained 2 inches of water. A retest, after tightening pipe-fittings, that showed a leak rate of .033 gal/hr was not sufficient for an RAO without soil samples or field screening for potential environmental impacts. Soil samples taken at a depth of three feet were not deep enough to assess potential releases from either the pipe or the UST itself. (Brookline 3-10351, February 13, 1995).
2. A test pit was not sufficient to assess potential impacts to groundwater from a residential fuel oil UST where the depth to groundwater was only 4 feet and remaining TPH contamination in the soil equaled 9500 ppm (Norwell 4-10009, February 22, 1995).

Annual Compliance Fees

Annual compliance fees have been structured to encourage swifter cleanup of releases. RPs who act quickly can reduce or eliminate their annual compliance fees. Apparently these incentives have worked. 85% of private sector RPs either RAO'd or Tier Classified their releases by the February 24, 1995 deadline for releases occurring between August 4, 1993 and January 31, 1994, including 94% of the spills to roadways.

The February 24, 1995 date for RPs for those releases to submit an RAO or Tier Classification has passed. All releases that occurred between August 4, 1993 and February 24, 1994 which did not meet the February 24 deadline now owe Tier IB compliance fees. BWSC will be sending bills for annual compliance fees in April and May. Sites with Transition Permits and more recently discovered Tier Classified sites will also receive bills.

Forms

BWSC has finalized revised Release Notification, IRA, RAM and URAM forms and will be finalizing ten other forms by mid-April. All BWSC forms are available at DEP regional service center. DEP will continue to accept submittals on the old forms until May 1, 1995.

Tips for LSPs

Include the RTN on all correspondence even when a form is not required. This assists DEP better record a document's receipt.

BWSC receives a number of RAOs that "conservatively" designate the site soil category as S-1 and the groundwater category as GW-1. Note that in a few instances the GW-2 or GW-3 standards are actually lower than the GW-1 standard (1,1 dichloroethylene for example). GW-3 applies in all instances under Method 1. Also be aware that BWSC selects RAOs for audit based in part on the designated soil and groundwater categories. As a result, an overly conservative designation may increase the chance of an audit.

Feasibility of Approaching Background

In response to early audit findings RAOs have begun to include more detailed discussions of the feasibility of achieving background. The following example shows a significant improvement from initial Class A-2 and A-3 RAOs:

"Previous response actions conducted at the site include the excavation and disposal of 150 cubic yards of contaminated soil in the vicinity of two former USTs, Achieving or approaching background concentrations for the remainder of the site would require excavating soil beneath paved areas and from beneath the building. Although this approach is technically feasible, excavation beneath the building would require

removal of the concrete slab floor, and could damage the structural integrity of the building. Costs associated with this approach include: 1) the increased costs of excavation and disposal; 2) removal and replacement of the concrete slab and pavement, and 3) potential damage to the structural integrity of the building and any subsurface utilities."

May 1995

Audit Findings

This column reports on 26 audits and compliance inspections BWSC completed between February 27, 1995 and March 31, 1995. Audit findings of particular significance include:

1. Additional site investigations to locate USTs and sample a dry well and soil for metals must be performed to achieve a Class A RAO at a location used as a tannery, gasoline station and for metal fabrication. (Amesbury 3-4855, March 3, 1995).
 2. A company that produces cleaning liquids resubmitted a Class B-2 RAO after sampling groundwater and locating USTs. (Dracut 3-4460, March 20, 1995).
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June 1995

Audit Findings

This column reports on 21 audits and compliance inspections BWSC completed between March 31, 1995 and April 30, 1995. Audit findings of particular significance include:

1. The excavation of five USTs uncovered a release of gasoline requiring 72-hour notification. An assessment only IRA found levels of aromatic hydrocarbons in excess of the GW-2 standards at depths of less than 15 feet. BWSC found that the IRA Completion Statement failed to address potential vapor impacts to downgradient residential dwellings. BWSC later notified the owner that BWSC would assess the extent of the groundwater plume and its potential impact on residences 100 feet downgradient if the owner did not. (Lawrence 3-10319, April 3, 1995).
2. A home heating UST on a barrier island with a shallow fresh water aquifer failed an UST test. The approved IRA required groundwater samples to be taken. Sidewall samples taken after excavation of the tank indicated that residual soil contamination no longer existed; however, no groundwater samples were taken. BWSC agreed that nearby private water wells may be sampled to establish that the release has not impacted the wells if information regarding their construction (depth, age, etc.) is provided (Newbury 3-10518, April 4, 1995).
3. Pumping groundwater containing a petroleum sheen from a tank excavation and discharging it, untreated, into a soil pile violates water pollution regulations (Peabody 3-10548, April 7, 1995).
4. A Class B-1 RAO found that the potential source of groundwater contamination was upgradient. BWSC found that the RAO violated the requirement that the source of oil or hazardous material be eliminated or controlled since sufficient on-site and off-site groundwater data had not been gathered. To remedy the violation the owner could further assess potential on-site sources or file a Downgradient Property Status (Waltham, 3-2055, April 11, 1995).
5. BWSC found a Class B-1 RAO in noncompliance since a separate phase of fuel oil had been observed on the ground water. Additional borings are needed to establish that the separate phase no longer exists (New Bedford, 4-10113, April 13, 1995).
6. A Class B-2 RAO that relied on an Activity and Use Limitation calling for continued sampling of private wells violated the requirement that an RAO achieve a level of No Significant Risk. Gasoline contamination exceeded Method 1 standards in both soil and groundwater (Holden 2-10195, April 14, 1995).
7. Exposure point concentrations used in a Method 2 risk characterization may be based on groundwater contamination levels averaged over time but not on averages between wells. (Braintree, 3-1460, April 18, 1995).
8. A Phase IV report for an industrial plant failed to adequately document: (1) the excavation and disposal of soil containing lead up to 537,000 mg/kg, (2) the immobilization of cyanide in an asphalt emulsion soil mixture (AESM) and the location of AESM containing lead (Westfield, 1-0235, April 25, 1995).

August 2 Deadline for LSP Evaluation Opinions Approaches

By August 2, 1995, PRPs of LTBI's, Unclassified and Non-Priority Sites listed before January 1989 must file an LSP Evaluation Opinion to determine whether a reportable release of oil and/or hazardous material has occurred and whether further response actions are required. DEP has already begun receiving phone calls from PRPs concerned about the approaching deadline. Locations that are not evaluated by August 2, 1995 will become Tier IB disposal sites. PRPs who miss the deadline must pay annual compliance fees and could face enforcement actions by DEP.

NOAFs April 1995

- Westminster 210037 Digital- One Digital Drive RAO 03/31/95
 - Lawrence 310319 100 Water Street IRAC 04/03/95
 - Newbury 310518 8 42nd street RAO 04/04/95
 - W. Bridgewater 400407 West Center Street, Ser. Sta Waiver 04/04/95
 - Peabody 310548 Newbury Street RAO, RAM 04/07/95
 - Worcester 210141 Millbury St., USS Ind Park RAO 04/07/95
 - Leominster 210094 Commercial Road RAO 04/10/95
 - Waltham 302055 Bear Hill Road RAO 04/11/95
 - New Bedford 410113 Duchaine Boulevard, Polaroid IRA, RAO 04/13/95
 - Springfield 100176 Armory St., Sunoco Sta. RAM 04/13/95
 - Westfield 110298 Union St. IRA04/13/95
 - Framingham 310248 Western Ave., West Tank Farm RAO 04/14/95
 - Holden 210195Main St. RAO04/14/95
 - Braintree 301460 Messina Drive RAO04/18/95
 - Framingham 301356 Worcester Rd., Fmr. Gas Sta. Waiver 04/19/95
 - Webster 200739 Gore Rd., Webster Lake RAO 04/18/95
 - W. Boylston 100017 Hartwell St. IRA04/18/95
 - Winchendon 210006 Railroad St., Furniture Co. RAO 04/19/95
 - Ashland 301812 Pond St., Sunoco Sta. Waiver04/24/95
 - Westfield 100235 Springdale Rd., Savage Ind. Waiver 04/25/95
 - Burlington 310520 Burlington RAO04/27/95
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July 1995

Audit Findings

This column reports on 18 audits and compliance inspections BWSC completed between May 1, 1995 and May 31, 1995. Audit findings of particular significance include:

1. Two rubber companies extensively filled a location now used as a shopping mall. BWSC audited the waiver completion statement for the site and agreed that the mall limits current exposure to the fill. Further actions should be taken to either determine risks posed by future exposures or control future disturbance of the fill. (Watertown, 3-2538, May 2, 1995).
 2. Releases of TPH and VOCs to a subsurface grease trap occurred at a former auto dealership located within a potentially productive aquifer (PPA). BWSC found that the Class A-3 RAO failed to consider the site's location within a PPA; as a result, VOC and TPH concentrations exceeded drinking water and Method 1 cleanup standards. (Winchester, 3-4426, May 5, 1995).
 3. The premature installation of a soil vapor extraction and air sparging system violated a condition of a RAM approval that a pilot test be performed before installation of the entire system. (Springfield, 1-0295, May 8, 1995).
 4. BWSC sampling did not detect lead in soil at the location of a former firing range being remediated and developed for affordable housing. (Great Barrington, 1-0444, May 10, 1995).
 5. Dry cleaners and service stations had operated on two adjoining parcels now owned by one person. The owner conducted a RAM to remove contaminated soil backfilled into a previous UST excavation located on the service station parcel. The RAO filed after the RAM covered both parcels. BWSC found that the RAO should be revised to limit the site boundaries to the location of the UST excavation or provide further documentation to justify the RAO of both parcels. (Newton, 3-2461, May 11, 1995).
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August 1995

Audit Findings

This column reports on 20 audits and compliance inspections BWSC completed between June 1, 1995 and June 30, 1995. Audit findings of particular significance include:

1. A fire at an auto junkyard released oil over an unpaved area leading into a drainage ditch and brook. An IRA excavated soil from the drainage ditch. The soil received a S-1 classification due to the lack of pavement and the proximity of residences. The unpaved area, ditch and brook were not sampled after the IRA. A soil boring, four feet in depth, in the vicinity of the release exceeded the S-1 standard and was not sufficient to support an A-2 RAO (Bridgewater, 4-10437 & 4-11208, June 27, 1995).
2. An RAO failed to identify current and foreseeable future uses of a property and exposures associated with those uses. A composite soil sample taken from a fifteen-foot boring could not accurately determine the depth of soil contamination and current and future exposure potential. (Springfield, 1-10222, June 30, 1995).
3. BWSC found two RAOs failed to establish the full extent of contamination in UST excavations. Reliance on composite samples taken from the UST excavations failed to conform with common operational practices and likely resulted in detection of lower contaminant concentrations. (Cambridge, 3-10625, June 7, 1995) (North Attleboro 4-10203, June 20, 1995).

Responses Actions After Defaulting to Tier IB Status

The MCP provides that releases that have not been cleaned up or classified within one-year from the date of notification become Tier IB sites. This is also the case for Locations to Be Investigated, Unclassified Sites and Non-Priority Sites without Waivers that have not been evaluated by the August 2, 1995 deadline. These sites must be assessed and Tier Classified before any further response actions can proceed.

Composite Samples

This month's audit findings report problems with the use of composite samples. Composite samples should only be used for releases of non-volatile compounds not expected to migrate in the soil or groundwater (e.g. incidental surface spills). The MCP recognizes depth to contamination as a significant risk factor. Compositing samples from different boring depths prevents exposure point concentrations at different depths from being determined. Releases from LUSTs generally migrate in a particular direction. Composite sidewall samples from UST excavations or from monitoring wells can not establish the direction of migration of a release. The compositing process can result in the release of volatile organic compounds from UST sidewall samples.

September 1995

Audit Findings

This column reports on 19 audits and compliance inspections BWSC completed between July 1, 1995 and July 31, 1995. Audit findings of particular significance include:

1. BWSC approval to line and backfill an excavation in order to provide support for a building does not exempt the contaminated backfill from cleanup or disclosure requirements. The MCP requires that sources such as residual soil contamination be eliminated or controlled before achieving a Class A RAO. An RAO that omitted sampling results for and risk posed by residual contamination violated the RAO Performance Standard and MCP requirements for accurate submittals. (Fitchburg, 2-10027, July 7, 1995).
2. BWSC refused to accept a Waiver Completion Statement that failed to include a Phase II report, a risk assessment or state whether a Permanent Solution had been reached. (Lexington, 3-2064, July 10, 1995).

Use of Composite Samples

In the August "Agency Speaks" column a number of audit findings reported problems with the use of composite samples. Compositing can skew results so LSPs should be prepared to justify RAOs based on samples composited over large horizontal or vertical areas. The MCP recognizes depth to contamination as a significant risk factor. Compositing samples from different boring depths prevents exposure point concentrations at different depths from being determined. Releases from LUSTs generally migrate in a particular direction. Composite sidewall samples from UST excavations or from monitoring wells can not establish the direction of migration of a release. The compositing process also results in the release of VOCs from UST sidewall samples. The UST Manual being prepared by BWSC will contain guidance for compositing samples during UST removals.

BWSC Electronic Forms

Good News! You can now save information entered into BWSC Electronic Forms. If the form needs to be corrected or viewed at a later date, information specific to a Release Tracking Number can now be recalled. Simply download all the BWSC Forms from the bulletin board again. A directory pathway has been coded into the forms, so now you can save entered information to a file. See the readme file on the bulletin board for further details.

NERO Dial-in Site Information

Selected portions of BWSC Sites Plus, Front End and Spills databases are now available via modem for sites handled by DEP's Woburn office. The system allows users to do searches by street address in a given community and within requested distances of established UTM coordinates. Data will be updated once a month. Remote operation will be available from 1 pm to 8 am by calling (617) 935-7241.

Woburn Office File Review

To better serve those making appointments to review public files in DEP's Woburn office, BWSC asks that you send your request via telefacsimile so that the files will be ready when you arrive for your appointment. Fax the request to Holly Migliacci at (617) 932- 7615.

October 1995

LSPs Adequately Classify Sites

You may not have noticed but this column has reported on very few audits involving NRS scores. BWSC has found that the great majority of Tier II Classifications have been sound. Tier classifications occasionally overlook the requirement that sites with groundwater contamination that exceeds RCGW-1 within Zone II's be classified Tier I without regard to the NRS Score. Other audits called for minor adjustments both up and down that did not result in reclassification of the site. Public notification requirements have often been overlooked or inadequately documented.

Subsections of NRS scores that have been scored higher than required include:

Automatic Classification to Tier IC: information on GIS MAPs that identify a site as within a Zone II should be confirmed in the field. Sites classified Tier IC based solely on GIS maps may be able to classify as Tier II when field observations establish that the site is not within the Zone II.

Section II.E. (multiple source score): If an UST is the sole source of contamination the resulting score is zero. BWSC permit staff note that Tier I sites occasionally underscore the number of sources.

Section IV.C., subscore entitled "persons served by public drinking water supply": If the site is not proximate to a public drinking water supply source, this subscore is zero.

Section V.B. (environmental toxicity score): Score this section only if score for Section V.A. is 30 or more.

Audit Findings

This column reports on 24 audits and compliance inspections BWSC completed between August 1, 1995 and August 31, 1995 and one audit completed in April 1995. Audit findings of particular significance include:

- 1.A spill of photoprocessing solution containing silver drained through an expansion joint in a floor. BWSC found that the Class A-2 RAO for the release using S-1 Standards had not been based on all relevant data and required that the RAO be resubmitted. Deep soil samples that had the greatest silver concentrations had not been included in the Method 1 risk assessment. BWSC required that all the relevant data be used and an AUL applied as appropriate or additional soil sampling be done at the same depth as the omitted data to re-assess the area of highest contamination. (Springfield, 1-10440, August 10, 1995).
- 2.BWSC required a Class B-1 RAO for an UST release at a gasoline station be resubmitted. None of the monitoring wells had been installed downgradient of the USTs. As a result, the extent of contamination and its potential impact on a downgradient park and a river, had not been established. Also, nearby basements had not been checked for vapors and sewer and water lines had not been investigated as migration pathways. (Great Barrington, 1-10020, August 16, 1995).
- 3.A PRP encountered contaminated soil and groundwater during the excavation of a 10,000 gallon fuel oil UST and an older UST that had been abandoned in place. BWSC found that the Class A-2 RAO violated requirements to sufficiently assess the release since monitoring wells had never been installed to assess potential groundwater impacts (New Bedford, 4-10002, August 22, 1995).
- 4.A PRP encountered contaminated soil and groundwater during the excavation of three 10,000 gallon fuel oil USTs that had been abandoned in place. Subsequent soil sampling showed the presence of elevated levels of lead, cadmium, chromium, mercury and zinc. The Class A-2 RAO relied on a Method 3 Risk Assessment that failed to consider all contaminants of concern, determine exposure point concentrations for petroleum hydrocarbons and calculate cumulative risk. (Boston, 3-10027, August 21, 1995).
- 5.A feed line leaked releasing 300 gallons of heating oil into a residence and a nearby wetland. The NRS score failed to consider fuel oil odors in the basement of a residence, the location of a private well nearby and deducted 50 points without any justification. BWSC's calculations indicated the site was not a Tier II site but a Tier IA site.

BWSC required the resubmittal of the NRS. (East Longmeadow, 1-10130, August 23, 1995).

6.A soil stockpile from the removal of USTs had been repeatedly moved and sifted over six years. Samples taken by BWSC audit staff indicated that the stockpile continued to contain petroleum hydrocarbons. Levels of metals in the soil had been estimated based on TCLP results for lead levels rather than direct data from soil sampling. As a result, BWSC found the Class A-2 RAO had not established that a level of no significant risk existed. (Lincoln, 3-1796, August 28, 1995).

November 1995

This column reports on 22 audits and compliance inspections BWSC completed between September 1, 1995 and September 30, 1995. Audit findings of particular significance include:

1. The fuel line of a delivery truck tore releasing diesel fuel that spread into gravel and soil at the edge of a parking lot. Confirmatory soil samples from the bottom of the excavation were analyzed using a chromatograph. The chromatographs for the confirmatory soil samples and the diesel fuel did not match. The Class A-2 RAO concluded that the fuel release had been cleaned up and that the residual contamination resulted from previous releases. BWSC requested quantitative laboratory sampling be done to confirm the recent diesel release had been cleaned up. (Barnstable, 4-10059, September 27, 1995).
 2. A company filed a Class A-2 RAO for a gasoline station. Concentrations of VOCs in soil and groundwater met Method 1, GW-2 and GW-3 Standards. However, lead in groundwater exceeded the Method 1 levels at three sampling locations. BWSC issued a Notice of Noncompliance requiring the RAO to be retracted and additional work be conducted to achieve a level of no significant risk. (Westfield, 1-0875, September 15, 1995).
 3. An LSP evaluation opinion incorrectly concluded that an LTBI is adequately regulated by the U.S. EPA under CERCLA because it is listed in the CERCLIS. (Haverhill, 3-0326, September 13, 1995).
 4. A construction crew ruptured a previously unidentified UST during excavations at Logan Airport for the Third Harbor Tunnel project. Soils impacted by the release were excavated. Soils below a concrete pad removed during excavation had a petroleum odor and free product oozed into the excavation. BWSC found that the Class A-1 RAO was not appropriate since contamination near the release has not been reduced to background. Also, the source of the free product had not been identified. (East Boston, 3-11701, September 5, 1995).
 5. The Class C RAO for a site housing a gasoline station and residence violated the MCP since: (1) the most recent groundwater data indicated that vapors could present a substantial hazard, and (2) neither a Phase II assessment or a Phase III evaluation had been completed. (Dennis, 4-0508, September 1, 1995).
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December 1995

Audit Findings

This column reports on 25 audits and compliance inspections BWSC completed between September 18, 1995 and October 31, 1995. Audit findings of particular significance include:

1. BWSC headspace analysis of groundwater indicated that gasoline contamination from an UST is migrating towards a river that feeds a public drinking water reservoir a mile downstream. The site owner planned to do a RAM to eliminate the source. BWSC recommended that groundwater monitoring at the Tier II site should continue each year to establish no significant risk exists and ultimately support a RAO. (Randolph, 3-2208, September 22, 1995).
 2. Soil contamination remaining after the removal of seven USTs and the filing of a Class A-2 RAO exceeded applicable Method 1 Cleanup levels. (Southbridge, 2-10110, October 5, 1995).
 3. A Class A-3 RAO failed to demonstrate that all sources of contamination had been eliminated or controlled. BWSC found that the site investigation failed to characterize the sources of contamination and Total Petroleum Hydrocarbon concentrations in the groundwater exceeded the Upper Concentration Limits. BWSC found that the RAO failed to meet the performance standards for RAOs and required an audit follow-up plan to further define the extent of contamination. (Clinton, 2-1037, October 9, 1995).
 4. VOC and TPH contamination at a site located next to a public drinking water reservoir exceeded MCP RCGW-1 Reportable Concentrations. BWSC asked for revision of the original LSP Evaluation Opinion that there was not a reportable release (Waltham, 3-2117, October 10, 1995).
 5. A Class A-1 RAO for a release of photo-processing chemicals had been based on visual observation only. BWSC observed a floor stain at the release location that extended to a crack in the floor. BWSC asked for soil samples to be taken beneath a crack. Those samples contained ammonia and had high pH levels. A revised RAO or Tier Classification will be filed in January. (Orange, 1-10281, October 13, 1995).
 6. A site consists of two areas, a maintenance hangar and a jet fuel tank farm. Investigations at the maintenance hangar had not shown that source areas had been eliminated or controlled prior to the completion of a Class A-2 RAO. The Risk Assessment for the jet fuel tank farm failed to consider Total Petroleum Hydrocarbons found at levels to 15,300 mg/kg. A Phase III feasibility study had not been completed prior to the completion of a Class C RAO for the jet fuel tank farm. (East Boston, 3-1449, October 13, 1995).
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